
Name of Organization: International Intervals, Inc.

Type of Organization: Other

Contact Information: Mr. JAY WEBBER

ENVIRONMENTAL DIVISION

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Project Title: Methane Recovery to Support a Greenhouse

Project Category: Pollution Prevention and Reduction - BNS

Rank by Organization (if applicable): 1

Total Funding Requested (\$): 174,811 **Project Duration:** 2 Years

Abstract:

SANITARY LANDFILLS ROUTINELY COLLECT AND PROCESS SIGNIFICANT VOLUMES OF METHANE GAS. METHANE COLLECTED THROUGH DEDICATED UNDERGROUND SYSTEMS NORMALLY IS EITHER BURNT OFF OR VENTED INTO THE ATMOSPHERE. BURNING, CERTAINLY CONTRIBUTES TO ATMOSPHERIC DEPOSITION OF CONTAMINATES. UNCONTROLLED VENTING PRODUCES UNTREATED BI-PRODUCTS INTO THE ENVIRONMENT. BOTH OF THESE REMEDIES POSE A THREAT TO THE NEAR BY GREAT LAKES SYSTEM. INTERNATIONAL INTERVALS INC. (I.I.I.) PROPOSES TO CONSTRUCT A MODEL CONTROLLED METHANE RECYCLING SYSTEM. THIS MODEL WILL DEMONSTRATE THE EFFECTIVENESS OF PROPERLY COLLECTING AND SUBSEQUENT GREENHOUSE APPLICATION. THROUGH THIS MODEL, WETLAND PLANTS, FOR NEWLY IMPLEMENTED AND APPROVED RESIDENTIAL WETLAND TREATMENTS FOR SEWAGE DISPOSAL, WILL BE GROWN AND TESTED. THIS MODEL WILL ALSO, AGAIN, DEMONSTRATE TO THE SOLID WASTE INDUSTRY AN ALTERNITIVE TO POLLUTING THE ATMOSPHERE. RECYCLING THE METHAHE REDUCES THE BURDEN OF OUR NATURAL RESOURCES AS WELL.

Geographic Areas Affected by the Project

States:

<input checked="" type="checkbox"/> Illinois	<input type="checkbox"/> New York
<input checked="" type="checkbox"/> Indiana	<input type="checkbox"/> Pennsylvania
<input checked="" type="checkbox"/> Michigan	<input checked="" type="checkbox"/> Wisconsin
<input checked="" type="checkbox"/> Minnesota	<input type="checkbox"/> Ohio

Lakes:

<input type="checkbox"/> Superior	<input type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input type="checkbox"/> Ontario
<input type="checkbox"/> Michigan	<input checked="" type="checkbox"/> All Lakes

Geographic Initiatives:

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
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Primary Affected Area of Concern: St. Marys River, MI

Other Affected Areas of Concern: GREAT LAKES

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

THE METHANE GAS COLLECTED IN LANDFILLS, NORMALLY IS IGNORED AS A FUTURE NATURAL RESOURCE. MOST REMEDIES FOR HANDLING THIS GAS END UP AS A NEGATIVE EFFECT ON THE ENVIRONMENT, EITHER WITH UNCONTROLLED VENTING OR BURNING, CONTRIBUTING TO ATMOSPHERIC DEPOSITION OF THE CONTAMINATES. THESE REMEDIES CONTRIBUTE TO THE WASTE OF A RECYCLING CAPABILITY OF METHANE, TO USABLE ENERGY AND POLLUTION OF THE GREAT LAKES SYSTEM.

Proposed Work Outcome:

THIS PROJECT WILL DEMONSTRATE THAT UNCONTROLLED METHANE FROM LANDFILLS CAN BE CONVERTED TO A PRODUCTIVE ENERGY SUPPLY. IT WILL ALSO SHOW HOW THE END USE OF THAT ENERGY CAN BE USED IN THE ENVIRONMENTAL IMPACTS TO WETLANDS AND GREENHOUSE APPLICATIONS. THE FUTURE RESULTS OF THIS MODEL WOULD CERTAINLY HAVE A POSITIVE EFFECTIVE ON THE GREAT LAKES ENVIRONMENT.

THE MAJOR COMPONENTS OF THIS PROJECT ARE AS FOLLOWS.

EXCAVATE AND INSTALL A METHANE COLLECTION SYSTEM INTO A PRE-EXISTING LANDFILL IN CHIPPEWA COUNTY, MICHIGAN.

CONSTRUCT AND DEVELOP A GREENHOUSE SYSTEM TO ACCEPT AND USE THIS ENERGY SOURCE.

GROW AND TEST PLANTS THAT CAN BE USED IN THE PROTECTION OF WETLANDS AND OTHER ENVIRONMENTAL IMPACT AREAS.

OTHER ISSUES

I.I.I. HAS ACCESS TO THE ADJOINING 40 ACRES AND WETLANDS TO STUDY THESE PLANT IMPACTS.

Project Milestones:

Dates:

MODEL DESIGN

05/2000

CONSTRUCTION

08/2000

OPERATION ,APPLICATION AND TESTING BEGIN

11/2000

SAMPLING TEST RESULTS

01/2002

ANALYSIS RESULTS COMPLETED

03/2002

DRAFT REPORT

04/2002

FINAL REPORT

05/2002

Project End

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☐ Project Addresses Environmental Justice

If So, Description of How:

☒ Project Addresses Education/Outreach

If So, Description of How:

THE RESULTS OF THIS MODEL WILL BE USED TO EDUCATE THE SCIENCE STUDENTS OF LAKE SUPERIOR STATE UNIVERSITY, IN ADDITION TO THE COUNTIES OF ALL THE GREAT LAKES STATES FROM THE WETLANDS IMPACT AND ENVIRONMENTAL PLANT APPLICATIONS. THE RESULTS WILL ALSO BE SHARED WITH THE SOLID WASTE INDUSTRY TO SHOW A POSITIVE SOLUTION TO AN ONGOING ENVIRONMENTAL PROBLEM.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	38,120	0
Fringe:	0	0
Travel:	10,000	500
Equipment:	35,000	500
Supplies:	10,000	0
Contracts:	70,692	7,500
Construction:	0	0
Other:	10,999	400
Total Direct Costs:	174,811	8,900
Indirect Costs:	0	0
Total:	174,811	8,900
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

5.1 PERCENT OF THE ENTIRE PROJECT COSTS WILL BE PROVIDED IN CASH OR BY IN-KIND CONTRIBUTIONS AND OTHER NON-CASH SUPPORT FROM I.I.I. . I.I.I. WILL ALSO PROVIDE ADDITIONAL STAFF TIME, AS NEEDED BEYOND THE SALARY AMOUNT DESIGNATED IN THE BUDGET. LAKE SUPERIOR STATE UNIVERSITY STUDENTS WILL ALSO HELP, IF POSSIBLE.

Description of Collaboration/Community Based Support:

FIELD SUPPORT WILL BE NEEDED FROM I.I.I., AND ITS CONTRACTORS. ACADAMIA SUPPORT WILL COME FROM LAKE SUPERIOR STATE UNIVERSITY STUDENTS AND INSTRUCTORS. IT IS OUR INTENT TO HAVE THIS PROJECT BE AN ONGOING AID IN EDUCATION FOR LAKE SUPERIOR STATE AND THE ADJOINING COMMUNITIES.